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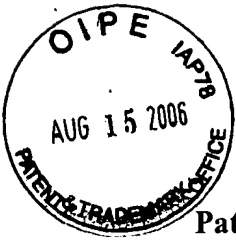
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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)	
<p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents P O Box 1450 Alexandria VA 22313-1450" [37 CFR 1.8(a)]</p> <p>on <u>August 11, 2006</u></p> <p>Signature <u><i>Tina Maurice</i></u></p> <p>Typed or printed name <u>Tina Maurice</u></p>		Application Number	Filed
		<u>09/732,122</u>	<u>December 7, 2000</u>
		First Named Inventor	
		<u>Eide et al.</u>	
Art Unit		Examiner	
<u>2626</u>		<u>Abul K. Azad</u>	
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>			
I am the		<u><i>Kevin M. Mason</i></u>	
<input type="checkbox"/> applicant/inventor		Signature	
<input type="checkbox"/> assignee of record of the entire interest.		<u>Kevin M. Mason</u>	
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96)		Typed or printed name	
<input checked="" type="checkbox"/> attorney or agent of record		<u>(203) 255-6560</u>	
Registration number <u>36,597</u>		Telephone number	
<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34		<u>August 11, 2006</u>	
Registration number if acting under 37 CFR 1.34 _____		Date	
<p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>			
<input type="checkbox"/> *Total of _____ forms are submitted.			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

5 Applicant(s): Eide et al.
Docket No.: YOR920000648US1
Serial No.: 09/732,122
Filing Date: December 7, 2000
Group: 2626
10 Examiner: Abul K. Azad

I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Signature: [Signature] Date: August 11, 2006

Title: Method and Apparatus for Producing Natural Sounding Pitch Contours in a Speech Synthesizer

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MEMORANDUM IN SUPPORT OF
PRE-APPEAL BRIEF REQUEST FOR REVIEW

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Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Sir:

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The present invention and prior art have been summarized in Applicants' prior responses.

STATEMENT OF GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

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Claims 1 through 24 are pending in the above-identified patent application. Claims 1, 4-6, 8-10, 13-16, 22, and 23 are rejected under 35 U.S.C. §102(b) as being anticipated by Ireton (United States Patent Number 5,797,120), claims 17, 18, 20, and 21 are rejected under 35 U.S.C. §102(b) as being anticipated by Tohkura et al., "Spectral Smoothing Technique in PARCOR Speech Analysis-Synthesis," claims 2 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ireton, claims 3, 12, and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ireton and
40 Tohkura et al., and further in view of Pearson (United States Patent Number 5,400,434),

and claims 7 and 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ireton, and further in view of Tohkura et al.

ARGUMENT

5 Claims 1, 8, 10, 15, 17, 20 and 22

Independent claims 1, 8, 10, 15, and 22 are rejected under 35 U.S.C. §102(b) as being anticipated by Ireton, and claims 17 and 20 are rejected under 35 U.S.C. §102(b) as being anticipated by Tohkura et al. Regarding claim 1, the Examiner asserts that Ireton teaches “increasing an amount of energy in low frequency components of said
10 pitch contour” (col. 3, line 58, to col. 4, line 2; col. 8, lines 23-40). Regarding claim 17, the Examiner asserts that Tokhura discloses “filtering said pitch contour with an impulse response filter having a pole at a desired low frequency value” (section Bandwidth expansion method). In the Response to Arguments section of the final Office Action, the Examiner asserts that “the element impulse train generator is pitch contour generator” in
15 Ireton. In the present Office Action, the Examiner asserts that the functional language “enhancing the natural sound of concatenated synthesized speech segments” is inherent in the invention of Ireton and Thokura because they teach all the other inventive steps. The Examiner further asserts that Ireton “teaches that limitation at col. 3, line 58 to col. 4, line 2; col. 8, lines 23-40.”

20 Applicants note that, in the text cited by the Examiner, Ireton teaches that “the gain controls 308a through 308n *enable the power or energy in each of the frequency sub-bands to be **individually controlled*** and enable a wide range of band-variable noise sequences...The band-variable noise generator 300 of the present invention can *selectively add noise* to various parts of the signal spectrum, thus providing a distinct
25 naturalness to the speech signal.” (Col. 8, lines 25-40; emphasis added.) Ireton does not, however, disclose or suggest *enhancing the natural sound of concatenated synthesized speech segments* by increasing an amount of energy in low frequency components of said *pitch contour*, and does not disclose or suggest wherein said increasing step serves to *add vibrato to said pitch contour*.

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Applicants note that, in the text cited by the Examiner, Tokhura teaches a method to “eliminate extremely sharp peaks in the spectral envelope.” Applicants could find no disclosure or suggestion by Tokhura to filter the pitch contour with an impulse response filter having a pole at a desired low frequency value, could find no disclosure or suggestion of *enhancing the natural sound of concatenated synthesized speech segments* by increasing an amount of energy in low frequency components of said *pitch contour*, and could find no disclosure or suggestion of wherein said increasing step serves to *add vibrato to said pitch contour*.

Regarding the Examiner’s assertion that the functional language “enhancing the natural sound of concatenated synthesized speech segments” is inherent in the invention of Ireton and Thokura because they teach all the other inventive steps, and that Ireton “teaches that limitation at col. 3, line 58 to col. 4, line 2; col. 8, lines 23-40,” Applicants reiterate that no disclosure or suggestion by Ireton or Tokhura could be found to filter the pitch contour with an impulse response filter having a pole at a desired low frequency value, or of *enhancing the natural sound of concatenated synthesized speech segments* by increasing an amount of energy in low frequency components of said *pitch contour*. Independent claims 1 and 22 require *enhancing the natural sound of concatenated synthesized speech segments* by increasing an amount of energy in low frequency components of said *pitch contour*. Independent claim 10 requires *enhancing the natural sound of concatenated synthesized speech segments* by adding band limited noise to said *pitch contour*. Independent claim 17 requires “*enhancing the natural sound of concatenated synthesized speech segments by filtering said pitch contour with an impulse response filter having a pole at a desired low frequency value.*” Claims 8, 15, and 20 require wherein said increasing step serves to *add vibrato to said pitch contour*.

Thus, Ireton and Tohkura et al., alone or in any combination, do not disclose or suggest *enhancing the natural sound of concatenated synthesized speech segments* by increasing an amount of energy in low frequency components of said *pitch contour*, as required by independent claims 1 and 22, do not disclose or suggest *enhancing the natural sound of concatenated synthesized speech segments* by adding band limited noise to said *pitch contour*, as required by independent claim 10, do not

disclose or suggest *enhancing the natural sound of concatenated synthesized speech segments* by filtering said pitch contour with an impulse response filter having a pole at a desired low frequency value, as required by independent claim 17, and do not disclose or suggest wherein said increasing step serves to add vibrato to said pitch contour, as required by claims 8, 15, and 20.

Claims 9, 16 and 21

Claims 9 and 16 are rejected under 35 U.S.C. §102(b) as being anticipated by Ireton, and claim 21 is rejected under 35 U.S.C. §102(b) as being anticipated by Tohkura et al. In particular, the Examiner asserts that Ireton teaches wherein said pitch contour comprises a pitch value associated with each syllable of said speech (col. 7, lines 13-26) and that Tohkura teaches wherein said pitch contour comprises a pitch value associated with each syllable of said speech (section Parameter estimation error influences on synthetic speech quality).

In the text cited by the Examiner, Ireton teaches “the DSP 104 preferably computes the excitation signals for the glottal pulse model using a linear phase delay.” (Col. 7, lines 18-20.) Ireton, however, does not disclose or suggest wherein said pitch contour comprises a *pitch value associated with **each syllable** of said speech*. Applicants could also find no disclosure or suggestion by Tohkura of wherein said pitch contour comprises a pitch value associated with each syllable of said speech. Claims 9, 16, and 21 require wherein said pitch contour comprises a *pitch value associated with **each syllable** of said speech*.

Thus, Ireton and Tohkura et al., alone or in any combination, do not disclose or suggest wherein said pitch contour comprises a pitch value associated with each syllable of said speech, as required by claims 9, 16, and 21.

Conclusion

The rejections of the cited claims under sections 102 and 103 in view of Ireton, Tohkura et al., and Pearson, alone or in any combination, are therefore believed to be improper and should be withdrawn. The remaining rejected dependent claims are believed allowable for at least the reasons identified above with respect to the

independent claims.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

5 The Examiner's attention to this matter is appreciated.

Respectfully submitted,



10 Date: August 11, 2006

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